

Course: *Advanced Construction and Carpentry*
Unit #1: *Jobsite Safety*

Year of Implementation: 2024-2025

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Stage One - Desired Results

Link(s) to New Jersey Student Learning Standards for this course:

{provide all applicable links to standards here}

<https://www.state.nj.us/education/cccs/2020/>

- **Unit Standards:** *(keep each of the following headings in place)*
 - **Content Standards**
 - **21st Century Life & Career Standards**
 - 9.3.MN-HSE.1 Demonstrate the safe use of manufacturing equipment.
 - 9.3.MN-HSE.3 Demonstrate a safety inspection process to assure a healthy and safe manufacturing environment.
 - 9.3.12.AC-CST.5 Apply practices and procedures required to maintain jobsite safety.
 - 9.3.12.AC-CST.9 Safely use and maintain appropriate tools, machinery, equipment and resources to accomplish construction project goals.
 - 9.3.MN-PRO.2 Manage safe and healthy production working conditions and environmental risks
 - 9.3.MN-PPD.3 Monitor, promote and maintain a safe and productive workplace using techniques and solutions that ensure safe production of products.
 - **English Companion Standards**
 - Grade 9-10 Companion Standards:
 - RST.9-10.3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.
 - Grade 11-12 Companion Standards:

- RST.11-12.3. Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.
- **Interdisciplinary Content Standards**
 - NJSLSA.W2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content
- **NJ Statutes:** NJ State law mandates the inclusion of the following topics in lesson design and instruction as aligned to elementary and secondary curriculum.

Amistad Law: N.J.S.A. 18A 52:16A-88 Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

Holocaust Law: N.J.S.A. 18A:35-28 Every board of education shall include instruction on the Holocaust and genocides in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.

LGBT and Disabilities Law: N.J.S.A. 18A:35-4.35 A board of education shall include instruction on the political, economic, and social contributions of persons with disabilities and lesbian, gay, bisexual, and transgender people, in an appropriate place in the curriculum of middle school and high school students as part of the district's implementation of the New Jersey Student Learning Standards (N.J.S.A. 18A:35-4.36) A board of education shall have policies and procedures in place pertaining to the selection of instructional materials to implement the requirements of N.J.S.A. 18A:35-4.35.

Diversity and Inclusion (N.J.S.A. 18A:35-4.36a) A board of education shall incorporate instruction on diversity and inclusion in an appropriate place in the curriculum of students in grades kindergarten through 12 as part of the district's implementation of the New Jersey Student Learning Standards.

Asian American and Pacific Islanders (AAPI) P.L.2021, c.410 Ensures that the contributions, history, and heritage

of Asian Americans and Pacific Islanders (AAPI) are included in the New Jersey Student Learning Standards (NJSLS) for Social Studies in kindergarten through Grade 12 (P.L.2021, c.416)

For additional information, see

NJ Amistad Curriculum: <https://www.nj.gov/education/amistad/about/>

Diversity and Inclusion: <https://www.nj.gov/education/standards/dei/index.shtml>

- (Sample Activities/ Lessons): <https://www.nj.gov/education/standards/dei/samples/index.shtml>

Asian American and Pacific Islanders:

- [Asian American and Pacific Islander Heritage and History in the U.S.](#)

A Teacher's Guide from EDSITEment offering a collection of lessons and resources for K-12 social studies, literature and arts classrooms that center around the experiences, achievements and perspectives of Asian Americans and Pacific Islanders across U.S. history.

Transfer Goal: Students will be able to safely construct a given project.

As aligned with LRHSD Long Term Learning Goal(s): <https://www.lrhdsd.org/Page/6163>

- communicate and collaborate using appropriate technical terms to describe, analyze, interpret, and judge their work and the work of others
- acquire, integrate, and apply design processes and essential technical skills to solve problems, create products, and improve the quality of life for our local and global community

Enduring Understandings {use Arial 11 font}

Students will understand that. . .

Essential Questions {use Arial 11 font}

<p><i>EU 1</i> the implementation of specific PPE and its proper use will minimize potential hazards.</p> <p><i>EU 2</i> power tools allow for faster production but present increased risk.</p> <p><i>EU 3</i> the implementation of proper safety procedures in a shop will minimize potential hazards.</p>	<ul style="list-style-type: none"> • <i>How do you determine what procedure, tools, and PPE best serve a given process?</i> • <i>What aspects of a build can you as the worker control when trying to make a process safer?</i>
<p><u><i>Knowledge</i></u> <i>Students will know . . .</i></p> <p><i>EU 1</i></p> <ul style="list-style-type: none"> • how to use personal protective equipment.(9.3.MN-PRO.2, 9.3.MN-PPD.3) • how to select the proper personal protective equipment for a given task. (9.3.MN-PRO.2, 9.3.MN-PPD.3) <p><i>EU 2</i></p> <ul style="list-style-type: none"> • the form, function, and safe application of hand tools. (9.3.12.AC-CST.9) • the form, function, and safe application of power tools. (9.3.12.AC-CST.9) <p><i>EU 3</i></p> <ul style="list-style-type: none"> • proper classroom procedures.(9.3.MN-PRO.2, 9.3.MN-PPD.3) • proper safety protocol.(9.3.MN-PRO.2, 9.3.MN-PPD.3) 	<p><u><i>Skills</i></u> <i>Students will be able to . . .</i></p> <p><i>EU 1</i></p> <ul style="list-style-type: none"> • select and use personal protective equipment. (9.3.MN-PRO.2, 9.3.MN-PPD.3) • identify potential hazards on a job site. (9.3.MN-PRO.2, 9.3.MN-PPD.3) <p><i>EU 2</i></p> <ul style="list-style-type: none"> • demonstrate the proper safety and function of hand and power tools.(9.3.12.AC-CST.9) • select the appropriate tool for a required task. (9.3.12.AC-CST.5) <p><i>EU 3</i></p> <ul style="list-style-type: none"> • demonstrate proper general lab safety.(9.3.MN-PRO.2, 9.3.MN-PPD.3)

Stage Two - Assessment

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Stage Three - Instruction

Learning Plan: Suggested Learning Activities to Include Differentiated Instruction and Interdisciplinary Connections: Each learning activity listed must be accompanied by a learning goal of A= Acquiring basic knowledge and skills, M= Making meaning and/or a T= Transfer. {place A, M and/or T along with the applicable EU number in parentheses after each statement} All knowledge and skills must be addressed in this section with a corresponding lesson/activity which teaches each concept. The following color codes are used to notate activities that correspond with interdisciplinary connections and 21st Century Life & Career Connections (which involves Technology Literacy):
Red = Interdisciplinary Connection; Purple = 21st Century Life & Career Connection

- Teacher led discussions on shop safety and hand/power tool usage (A EU 1, 2, 3)
- Demonstrations on hand/power tool usage.(A,M, EU 2),
- Student note taking on safety(A, EU 1, 2, 3)
- Practice new skill sets on hand and power tools (M, EU, 2, 3)
- Create a safety and operations worksheet outlining the function of given tools (M,T EU 2, 3)
- Teacher demonstrations on appropriate PPE selection, form and function (M, EU, 1, 3)
- Students demonstrate proper PPE selection and use in varying situations (M,T, EU, 1, 3)
- Student journaling (M,T EU 1, 2, 3)
- Students demonstrate proper fit and usage of various PPE (T, EU 1, 3)

Pacing Guide

{This chart will be identical in all of the units for this course.}

Unit #	Title of Unit	Approximate # of teaching days
1	<i>Jobsite Safety</i>	20
2	Framing	55
3	Construction Specializations	45
4	Material Selection & Interactions	15

Instructional Materials

A fully equipped shop including but not limited to:

Hand Tools (Hammers, Pliers, Screwdrivers, Nutdrivers, Wrenches, Squares, Tin Snips, Chisels, Cross Cut Saws, Mallets, Putty Knives, Measuring Tapes, Utility Knives, Wire Strippers, Rulers, Caulk Guns, Paint Brushes, Chalk Line)

Power Tools (Cordless Drills, Impact Drivers, Cordless Circular Saws, Cordless Jig Saws, Cordless Reciprocating Saws, Cordless Routers, Cordless Framing Nailers, Cordless Finishing Nailers, Cordless Stapler)

Materials (Framing Supplies, Roofing Supplies, Mechanical Fasteners, Electrical Supplies, Plumbing Supplies, Paint, Masonry Supplies, Sealing & Insulation Materials)

PPE (Hardhats, Fall Protection, Safety Glasses, Respirators, Gloves, Knee Pads, Coveralls, Face Shields)

Equipment (Ladders, Scaffolding, Fall Arrest Points, Moving Equipment)

Accommodations

Special Education: The curriculum will be modified as per the Individualized Education Plan (IEP). Students will be accommodated based on specific accommodations listed in the IEP.

Students with 504 Plans: Students will be accommodated based on specific accommodations listed in the 504 Plan.

English Language Learners: Students will be accommodated based on individual need and in consultation with the ELL teacher.

Students at Risk of School Failure: Students will be accommodated based on individual need and provided various structural supports through their school.

Gifted and Talented Students: Students will be challenged to enhance their knowledge and skills through acceleration and additional independent research on the subject matter.